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G06F 9/46(21) Application number: **62302655**(71) Applicant: **TOSHIBA CORP**(22) Date of filing: **30.11.87**(72) Inventor: **YOSHIMURA MASAHIKO**(54) **REGISTER SAVING AND RELOADING SYSTEM**

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(57) Abstract

PURPOSE: To increase the processing speed by providing a register part which is utilized by an arithmetic unit in a subroutine calling routine and a register part which is utilized by the arithmetic unit in a called subroutine individually and performing register saving and reloading processes independently from the arithmetic unit.

CONSTITUTION: A register part 22a is connected to the arithmetic unit 21 by a register saving and reloading device 26. Then the register saving and reloading device 26, when receiving information on the generation of a subroutine call from the arithmetic unit 21, switches the registers part 22a to a register part 22b and then informs the arithmetic unit 21 that instruction execution may be started. The register saving and reloading device 26, on the other hand, saves the contents of a register part 22a in a stack area 24 independently of the arithmetic unit 21 and in parallel to the subroutine processing of the arithmetic unit 21.

